

Remarks:

Reconsideration of the application is respectfully requested.

Claims 1 - 13 are presently pending in the application.

Claims 5 and 6 have been amended. Claim 4 have been indicated as being allowable if rewritten to include all the limitations of the claims from which that claim depends.

In paragraph 1 of the above-identified Office Action, the Examiner objected to claim 6 because of an informality. Applicant has made the Examiner's suggested correction, herein.

In paragraph 3 of the above-identified Office Action, claims 5 - 8, 12 and 13 were rejected as being indefinite under 35 U.S.C. § 112, second paragraph. More specifically, it was stated in the Office Action that the scope of the limitation "if this is not the case" recited in the last two lines of claim 5 could not be determined. Applicant has amended claim 5 to even more clearly set forth the meaning of that claim. The amendment to claim 5 is supported by the specification of the instant application on page 14, lines 5 - 16. It is accordingly believed that the claims meet the requirements of 35 U.S.C. § 112, second paragraph.

In paragraph 5 of the Office Action, claims 1 and 9 - 11 were rejected as allegedly being anticipated under 35 U.S.C. § 102(b) by U. S. Patent No. 5,673,252 to Johnson et al ("JOHNSON"). In paragraph 7 of the above-identified Office Action, claims 2 and 3 were rejected as allegedly being obvious under 35 U.S.C. § 103(a) over JOHNSON in view of U. S. Patent No. 4,963,868 to Takayama ("TAKAYAMA") and U. S. Patent No. 4,015,252 to Symanski ("SYMANSKI").

Applicant respectfully traverses the above rejections.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

I. Applicant's claimed invention requires, among other limitations, nodes that communicate with one another, to output a synchronization signal defining a reference time for a synchronization of those nodes.

Claim 1 recites, a synchronous network, including:

"nodes transmitting data to one another in a predefined sequence for a predefined duration, a plurality of said nodes outputting a synchronization signal defining a reference time for a synchronization of said nodes."  
[emphasis added by Applicant]

As such, among other limitations, Applicant's claims require the following: 1) nodes transmitting data to one another in a predefined sequence for a predefined duration; and 2) a

**plurality of said nodes (i.e., the nodes transmitting data to one another) outputting a synchronization signal defining a reference time for synchronization of said nodes.** All of the above limitations must be found in a reference in order to anticipate Applicant's claimed invention.

Referring specifically to the above limitations, the specification of the instant invention links Applicant's claimed combination to at least two desired advantages on page 4, lines 5 - 18, which state:

"According to the invention, the network is defined by the fact that a plurality of nodes, or all the nodes, can output a synchronization signal that defines a reference time for the synchronization of the nodes.

This proves advantageous in two ways. First, the plurality of nodes, or all the nodes, can predefine a reference time to which synchronization is to take place. Second, the synchronization signal that specifies the reference time does not need to contain any information relating to the transmitting party, or any other information, so that the synchronization signal can be such that it does not disrupt the synchronization if the synchronization signals of the plurality of nodes overlap one another chronologically."

Note that the recited claim limitation also requires, among other things, the **synchronization signal output by the plurality of nodes to define "a reference time for a synchronization of said nodes."** This is discussed on page 24 of the instant application, lines 1 - 6, wherein it is stated that, in the example discussed therein, the start of the

global time slot S (see Applicant's Figs. 1 - 3) is defined by the synchronization signals.

**II. The JOHNSON reference fails to teach or suggest, among other limitations, nodes that communicate with one another, to output a synchronization signal defining a reference time for a synchronization of those nodes.**

In the Office Action, the JOHNSON reference is cited against Applicant's claims 1 and 9 - 11, as well as in combination with other references, against claims 2 and 3. Applicant respectfully disagrees with the allegation that the JOHNSON reference either anticipates, or renders obvious, Applicant's independent claim 1. As stated above, Applicant's claims require, among other limitations: a) nodes transmitting data to one another in a predefined sequence for a predefined duration; and b) a plurality of said nodes (i.e., the nodes transmitting data to one another) outputting a synchronization signal defining a reference time for synchronization of said nodes (again, the nodes transmitting data to one another).

Contrary to Applicant's invention, JOHNSON teaches a wide area communications network that communicates data from a plurality of network service modules ("NSMs") to a central data terminal. See JOHNSON, col. 9, lines 46 - 57. JOHNSON is essentially a remote meter reading scheme. In JOHNSON, a plurality of intermediate data terminals ("IDTs") transmit

**IDT**-synchronization signals to the plurality of remote cell nodes ("RCNs") on a first channel of the frame. In **JOHNSON**, the plurality of **RCNs** transmit **RCN**-synchronization signals to the plurality of network service modules ("NSMs") on a second channel of the frame. The **RCN**-synchronization signal sent to the network service modules, is described in **JOHNSON**, in col. 10, lines 50 - 53, which state:

"The **RCN**-synchronization signal can provide a time reference for updating a local clock, and serve as a frequency reference to the network service module."

The controller 314 of the **NSMs** of **JOHNSON** require a clock for reasons stated in col. 12, lines 8 - 23 of that reference,

"After preparing the packet of data for transmission, the controller 314 is arranged to hold the data packet for a random period of time. This random period can be calculated using various randomizing techniques including, for example, a pseudo-random calculation based upon the rotation of the metering disk at any particular instant. In this way each of the network service modules is arranged to transmit at a random time. The controller 314 is arranged so that the transmission does not occur within a particular predetermined quiet time so that the network service modules are not allowed to transmit during this quiet time. This quiet time could be set as one hour in every eight hour period. In this way, after an eight hour period has elapsed, each of the network service modules would transmit at a random time during the subsequent seven hours followed by one hour of quiet time.

**JOHNSON** neither teaches, nor suggests, that the remote cell nodes ("RCNs") communicate with one another for defining a reference time for a synchronization of those nodes, as

required by Applicant's claims. Rather, the **RCNs** of the **JOHNSON** reference provide the **RCN-synchronization signals** only to the **NSMs**, and not to each other. See, **JOHNSON**, col. 10, lines 50 - 53; col. 18, lines 14 - 29. Data reported back from the **NSMs** can be received by at least two **RCNs** (see, **JOHNSON**, col. 5, lines 44 - 47), but, the **RCNs** are not communicating that data, or a synchronization signal, to each other.

Further, although, the **RCNs** of **JOHNSON** have the ability to listen in or eavesdrop on neighboring remote cell nodes when they are polled by their intermediate data terminal (see **JOHNSON**, col. 5, lines 64 - 67), so as to be able to delete from their memories, duplicate data from an **NSM** that was received by two or more **RCNs**. See **JOHNSON**, col. 6, lines 10 - 20. However, the **RCNs**, again, do not communicate with one another, nor do they transmit to one another, synchronization signals for the purpose of defining a reference time for synchronizing with each other, as required by Applicant's claims.

Even the portion of **JOHNSON** cited in the Office Action, col. 74, lines 21 - 26, specifies that the **RCN-synchronization signals** are transmitted "from each of the plurality of remote cell nodes to the plurality of network service modules". See

also, col. 74, lines 29 - 33 of **JOHNSON**, which specifies the synchronization of the **NSMs**.

As such, **JOHNSON** neither teaches, nor suggests, outputting from a plurality of nodes, a synchronization signal for the purpose of defining a time reference for synchronization of those nodes, as required by Applicant's claims.

As such, Applicant's claims are believed to be patentable over the **JOHNSON** reference.

**III. The TAKAYAMA and SYMANSKI references additionally fail to teach or suggest, among other limitations, nodes that communicate with one another, to output a synchronization signal for the purpose of defining a reference time for a synchronization of those nodes.**

The **TAKAYAMA** and **SYMANSKI** references were cited in the Office Action, in combination with the **JOHNSON** reference, as allegedly teaching certain features present in Applicant's dependent claims. However, neither the **TAKAYAMA** reference, nor the **SYMANSKI** reference, teach or suggest, among other limitations, Applicant's claimed **nodes that communicate with one another, to output a synchronization signal defining a reference time for a synchronization of those nodes**. As such, neither the **TAKAYAMA** reference, nor the **SYMANSKI** reference, can cure the deficiencies of the **JOHNSON** reference.

**A. The TAKAYAMA reference fails to teach or suggest, Applicant's claimed invention.**

More particularly, the **TAKAYAMA** reference relates to a frame synchronizing method and system. The **TAKAYAMA** reference discloses the use of a synchronizing signal with a unique sync pattern based on the logic levels of the original data stream inserted into a coded data stream. See **TAKAYAMA**, Abstract. However, **TAKAYAMA** fails to teach or suggest, among other limitations of Applicant's claims, **nodes that communicate with one another, to output a synchronization signal defining a reference time for a synchronization of those nodes.**

As such, Applicant's claims are believed to be patentable over the **TAKAYAMA** reference.

**B. The SYMANSKI reference fails to teach or suggest, Applicant's claimed invention.**

The **SYMANSKI** reference relates to a high speed serial data synchronization scheme. The **SYMANSKI** reference discloses a serial-to-parallel data synchronization and conversion scheme converting serial asynchronous data to parallel data without a separate clock line, or complex coding of the simple NRZ format. See, col. 4, lines 4 - 9. However, **SYMANSKI** fails to teach or suggest, among other limitations of Applicant's claims, **nodes that communicate with one another, to output a**

**synchronization signal defining a reference time for a synchronization of those nodes.**

As such, Applicant's claims are believed to be patentable over the **SYMANSKI** reference.

**IV. Conclusion.**

It is accordingly believed that none of the references, whether taken alone or in any combination, either teach or suggest the features of Applicant's claim 1. Claim 1 is, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claim 1. As it is believed that the claims were patentable over the cited art in their original form, the claims have not been amended to overcome the references.

Finally, Applicant appreciatively acknowledges the Examiner's statement that claim 4 "would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims." In light of the above, Applicants respectfully believe that rewriting of claims 4 is unnecessary at this time.

Applicant notes that, in addition to claim 4 which was indicated as allowable, no art rejection was made against claims 5 - 8 and 12 - 13. Applicant is believed to have overcome the 35 U.S.C. § 112 rejection by the amendment of claim 5, herein, and as such, believes that these claims, too, are in condition for immediate allowance.

In view of the foregoing, reconsideration and allowance of claims 1 - 13 are solicited.

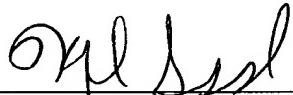
In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out.

If an extension of time for this paper is required, petition for extension is herewith made.

Please charge any fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

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Respectfully submitted,

  
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